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## INFORMATION REPORT INFORMATION REPORT

## CENTRAL INTELLIGENCE AGENCY

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S E C R E T

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COUNTRY East Germany

REPORT

SUBJECT Heinrich Hertz Institute: 1956 Annual Short DATE DISTR.  
Report on Investigation of Influence  
of Ionospheric Layers on Propagation  
of Short Waves

1 MAY 1957

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SOURCE EVALUATIONS ARE DEFINITIVE. APPRAISAL OF CONTENT IS TENTATIVE.

"Investigation of the Influence of the Ionospheric Layers on the Propagation  
of Short Waves"

Measurements of ionospheric absorption at 3.86 MHz (megacycles) by the impulse method were continued at the Juliusruh station on Ruegen Island; these measurements have been made since 1954. As a result of the development of a new impulse receiver with logarithmic characteristics, it was possible to significantly simplify and improve the measuring procedure. The impulse receiver was put into operation in April 1956. After periodic measurements in January, April/May and July/August had been completed, daily measurements were begun on 1 October 1956. The results of the daily measurements are published monthly. In April experimental measurements of diagonal incidence (schraeg Einfall) and experiments concerning fading statistics were undertaken in addition to vertical measurements. The diagonal incidence measurements were made on the Berlin-Ruegen line (240 kilometers). A new impulse transmitting and receiving unit at 2.055 MHz (megacycles which is to be used together with the 3.86 MHz unit for ionospheric absorption measurements during the International Geophysical Year, is now under construction.

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